Small Business Innovation Research/Small Business Tech Transfer

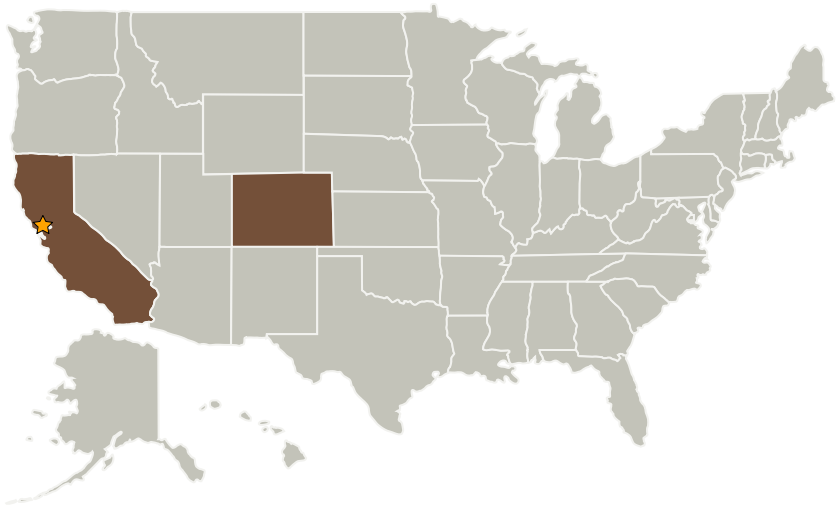
Remote Data Exploration with the Interactive Data Language, Phase I

Completed Technology Project (2008 - 2008)

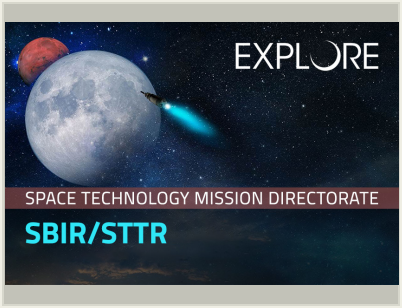
Project Introduction

We propose to develop a tool for NASA researchers based on IDL and DAP for user-friendly remote data access. A popular data analysis tool in the NASA research community is IDL (Interactive Data Language). A main limitation presently on performing data analysis with IDL for NASA researchers is that often the data to analyze is located remotely from the scientist, and also, often the data is too large to transfer for local analysis. Researchers have developed a protocol for accessing remote data, the Data Access Protocol (DAP), and one can use DAP from within IDL, but presently using the DAP-IDL interface is both limited and cumbersome. We propose to develop a more powerful, user-friendly interface to DAP for IDL. At the completion of this work, users will be able to browse remote data sets from an IDL GUI, have an interactive IDL command line session simultaneous with the remote visualization and write custom IDL functions that will act on the remote data with results displayed locally. We will make all of these IDL-DAP tools usable seamlessly for any IDL user.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Tech-X Corporation	Supporting Organization	Industry	Boulder, Colorado



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations	
California	Colorado

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Michael D Galloy

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - TX11.6 Ground Computing
    - TX11.6.7 High Performance Data Analytics Platform